



**WORLD WIDE WEB  
FOUNDATION**



**ALLIANCE FOR  
AFFORDABLE INTERNET**

# **CLOSING THE INVESTMENT GAP:**

How Multilateral Development  
Banks Can Contribute  
to Digital Inclusion

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Disclaimer: The views expressed in this paper are those of the author and do not necessarily reflect the opinions of the Web Foundation, working group members or MDBs.



### About A4AI

The Alliance for Affordable Internet (A4AI) is the world's broadest technology sector coalition working to reduce the cost of internet access to enable universal, affordable access for all. Initiated by the Web Foundation in 2013, the Alliance is composed of 80+ member organisations from across the private, public, and not-for-profit sectors in both developed and developing countries. Working through a consultative, locally-driven and locally-led process in member countries throughout Africa, Asia, and Latin America, A4AI works to shape the policies and regulations needed to drive down prices and enable everyone, everywhere to afford to connect.



### About the Web Foundation

The World Wide Web Foundation is an independent, international organisation working for digital equality – a world where everyone has the same rights and opportunities online.

Established in 2009 by web inventor Sir Tim Berners-Lee, the Web Foundation works to advance a free and open web 'for everyone' by influencing government and corporate policies to ensure everyone can use the web freely and fully.



### About Xalam Analytics

Xalam Digital Analytics is a boutique research and analytics firm focused on digital infrastructure and services markets in Africa and the Middle East. We leverage data analytics tools and investment research to help clients identify and act on digital transformation opportunities. We develop extensive data sets and market visualizations that underpin the analysis of the digital economy: "Foundational infrastructure" markets (broadband connectivity, backbones, data centers), digital services and applications (managed hosting & cloud services, video streaming, e-commerce, mobile money and emerging IoT models), all in key enterprise and consumer segments.

## KEY ABBREVIATIONS

AFDB	AFRICAN DEVELOPMENT BANK
ADB	ASIAN DEVELOPMENT BANK
AIIB	ASIAN INFRASTRUCTURE INVESTMENT BANK
EIB	EUROPEAN INVESTMENT BANK
ICT	INFORMATION AND COMMUNICATIONS TECHNOLOGIES
IBRD	INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
IDA	INTERNATIONAL DEVELOPMENT ASSOCIATION
IFC	INTERNATIONAL FINANCE CORPORATION
IMF	INTERNATIONAL MONETARY FUND
ITU	INTERNATIONAL TELECOMMUNICATIONS UNION
MDBS	MULTILATERAL DEVELOPMENT BANKS
MSWG-MDB	MULTI-STAKEHOLDER WORKING GROUP ON MDB INVESTMENT STRATEGIES IN THE ICT SECTOR
NDB	NEW DEVELOPMENT BANK
SDGS	SUSTAINABLE DEVELOPMENT GOALS
WB	WORLD BANK
WEF	WORLD ECONOMIC FORUM

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## EXECUTIVE SUMMARY



**G**iven the considerable size of investment needed to achieve universal access, we conducted an analysis of MDB investments in the ICT sector across low- and middle-income countries to assess whether and how MDBs' considerable capabilities could be better harnessed to accelerate progress toward universal access and digital inclusion. The research primarily included an analysis of the size, nature, and drivers of MDB investments in the ICT sector. It also encompassed a quantitative assessment of the capital gap to achieve universal access to connectivity, along with the development of a set of recommendations and guiding principles for more effective MDB investments in the ICT sector.

### **MDB investments in the ICT sector overall are low.**

- Multilateral Development Banks (MDBs) have made a significant contribution to infrastructure development around the world, through their own direct investments, a coalescing of government and private sector capabilities to implement large-scale projects, and by supporting governments to develop policies that attract and enable private sector investment. Between 2012 and 2016, MDBs have committed a cumulative \$525 billion to funding development projects in low- to middle-income countries worldwide. MDB commitments to development projects now average around \$100–\$120 billion annually, to help finance 1100 to 1400 projects every year.
- However, the information and communications technology (ICT) sector has attracted just 1% of MDBs' cumulative project commitments since 2012, despite increasing global recognition of ICTs and wider digital access as critical to the realisation of the Sustainable Development Goals (SDGs). Between 2012–2016, contribution levels to ICT projects in low- and middle-

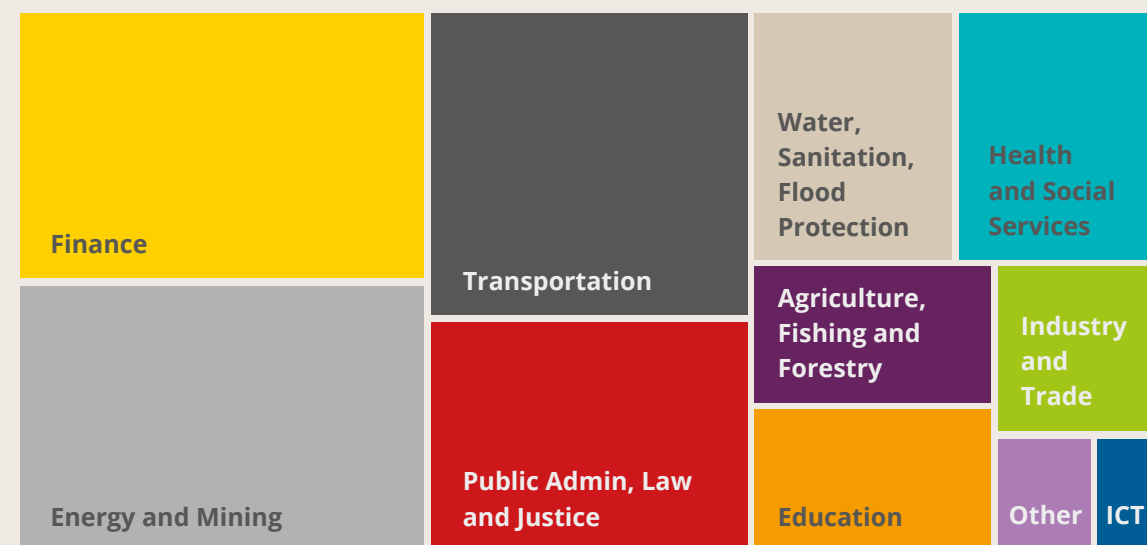
income countries have been stable, typically in the 1% to 1.4% range.

- Investments in the ICT sector are unevenly distributed across MDB institutions. As a group, three World Bank Group institutions (International Bank for Reconstruction and Development (IBRD), International Development Association (IDA) and International Finance Corporation (IFC)) account for about half of MDB overall global commitments to projects in low- and middle-income countries. Likewise, the IFC is the largest individual contributor to MDB investment in the ICT sector in terms of capital investment volumes; it is also the institution that spends the most in the ICT sector as a proportion of its overall commitments — around 4% of its annual commitments.

- South East Asia and Sub-Saharan Africa have attracted the majority of MDB commitments to the ICT sector in low- to middle-income countries; these two regions account for around 70% of all cumulative commitments over the 2013-2017 period, and around two times what MDBs spend in all other regions combined.

**Between 2012 and 2016, MDBs have committed a cumulative \$525 billion to funding development projects in low-to middle-income countries worldwide. Just 1% of these project funds have gone toward ICT projects.**

**Cumulative MDB Annual Capital Commitments by Sector – 2012-16**

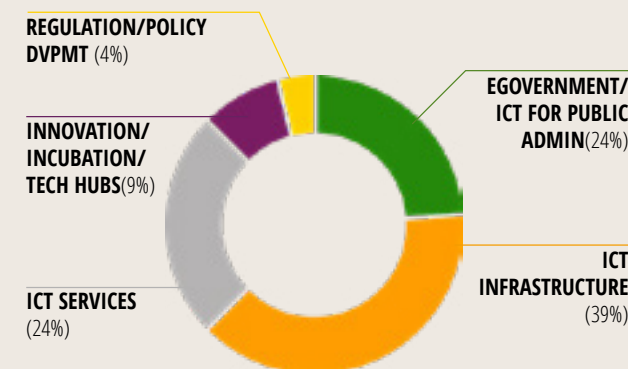


Based on data from 9 MDBs (IBRD, IDA, IFC, AFDB, ADB, IDB, EIB, AIIB and NDB); Sources: MDBs, Xalam Analytics Research

**MDB investments to support the development of enabling ICT policy frameworks are in decline.**

- Less than 5% of MDB commitments to the ICT sector were specifically dedicated to supporting regulation and policy projects over the 2012-17 period. Indeed, the proportion of ICT projects dedicated to regulation and policy has been in decline since 2013, to near-zero levels in 2016.
- This underinvestment comes at a crucial time for ICT regulatory frameworks in many low- and middle-income countries. Rapid technological progress around spectrum usage, cloud computing and artificial intelligence has challenged established regulatory boundaries, and upended business models and conventional market structure definitions. In turn, many countries are seeing their regulatory frameworks become increasingly out of date, with significant implications for their ability to attract additional investment in the ICT sector.
- Around 40% of MDB commitments to the ICT sector are focused on infrastructure buildout projects — typically submarine and terrestrial fibre projects. Another 25% goes to fostering the usage of ICT services, with the balance being allocated to e-government initiatives and, increasingly, tech and innovation/incubation hubs.

**Multilateral Development Banks' ICT Projects by Type, 2012-2016 \***



\*Based on a sample of 155 identified ICT projects approved by 9 global and regional MDBs between January 2012 and December 2016; based on primary focus of the project; some projects may overlap categories; segment categories based on Xalam Analytics definition. Sources: MDBs' operations datasets; Xalam Analytics Research

**Investment in the ICT sector is perceived as a private sector activity — and this model is showing its limits when it comes to connecting the unconnected.**

- The fundamental reason behind the low levels of MDB commitments to the ICT sector is the established perception of the sector as an industry driven almost exclusively by private capital, with limited need for public sector participation.
- While there is broad acknowledgement of the importance of ICT to achieve the SDGs, this understanding does not seem to influence all levels of government and investment decisions. As a result, it affects government prioritisation of the ICT sector — Ministries of Finance, which typically serve as the primary interface with MDBs, often do not prioritise the ICT sector when it comes to raising funds from international institutions.
- Within MDBs, the private capital-driven nature of the ICT sector, combined with a need to adhere to the priorities of their client governments and a reluctance to crowd out private capital, has reinforced an emphasis on focusing MDB capital primarily towards perceived areas of market failure.
- A critical consequence is a model that is fostering a “middle class-centric” view of ICT markets, whereby capital investments are primarily focused on the needs of the growing urban middle class, leading to a deepening of the digital divide between urban and rural areas.
- This private sector-driven model is showing its limits when it comes to connecting the unconnected, and achieving the broader objective of digital inclusion. Extending access to connectivity in rural areas is a highly complex, multi-faceted challenge. Capital requirements are considerable; projects have extra layers of complexity tied to economics, government participation and physical conditions, and private sector stakeholders are reluctant to invest, while dedicated rural area players face substantial hurdles in raising capital.

- This, in turn, calls for new, more suitable approaches to conceptualising and financing rural area projects, including new financing and implementation models, fresh approaches to private sector incentivisation, pertinent measures of success, etc.

**\$10 billion a year is needed to close the universal access gap, and expanded digital inclusion will require more capital — from MDBs, the private sector, and public sector alike.**

- The challenges associated with achieving universal access are considerable. Our analysis shows that low- and middle-income countries would need to bring online over 2 billion new users over the next 10 years to hit a 95% penetration rate (up from around 40% in 2017).
- Assuming stable private sector investment levels, this translates into an investment gap of around \$100 billion globally over the next 10 years — or about \$10 billion a year that would need to be added to capital expenditure budgets. Around 60% of this gap would be tied to the need for expanded infrastructure deployments, with the balance going to interventions designed to foster adoption and usage, around skills building, awareness, and local content.
- Our analysis further suggests that the investment gap is highest in Southeast Asia and Sub-Saharan Africa. Together, these two regions account for around 90% of the investment gap that needs to be filled to achieve universal access.
- Substantial efforts are needed from all stakeholders to close this considerable shortfall in capital. Current MDB spend in the ICT sector represents only around 10% of the existing capital investment gap. Likewise, telecoms operators would have to increase their average annual network expansion spend by around 15-20% to fill the infrastructure portion of the investment gap (~\$6 billion annually).
- While our estimates are largely policy neutral, it must be emphasised that the biggest contribution to closing the investment gap may yet come from the actioning of critical policy levers, notably with respect to network infrastructure sharing, spectrum, taxes, and other measures that would increase the viability of rural area ICT projects.

**KEY RECOMMENDATIONS**

**1. Change the investment narrative within and outside of MDBs to re-establish the ICT sector as a priority sector.**

- Remind and impress upon all stakeholders the strong link between digital access and the SDGs;
- Leverage the breadth of presence of MDBs to drive a cross-sector digital agenda;
- Make digital access/usage an inherent part of MDB project assessment, or an integral part of MDB project sustainability;
- Evolve the broader terminology used in order to better capture the role of ICTs in the context of SDGs.

**2. Develop innovative financing solutions for rural area projects.**

- Create funding mechanisms that are more suitable for rural area projects, including last-mile solutions;
- Increase the amount of financing allocated to smaller, often transitional projects;
- Optimise the use of government incentives to attract private capital and improve the rural project business case.

**3. Increase investments in the development of enabling policy frameworks.**

- A renewed effort to increase capital commitments to MDB ICT policy/regulatory projects;
- Assess and learn from areas of policy failure to inform the development of new enabling frameworks;
- Focus efforts to develop infrastructure sharing policies and open access models, appropriate spectrum flexibility, and more efficient taxation schemes that attract private capital into underserved areas.



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